

Podcast Transcript for "The Destructive Gypsy Moth and Its Impact on Our Environment"

Interviewer (AW): Adrian Woodfork, Public Information Officer, CDFA

Guest (TS): Dr. Tom Smith, State Forester and Entomologist, Pest Management Program, California Department of Forestry and Fire Protection

AW: "Thank you for tuning in to the California Department of Agriculture's Agricast. I'm Adrian Woodfork, Public Information Officer for CDFA's Plant Health Services Division. My guest is Dr. Tom Smith, from the California Department of Forestry and Fire Protection. Dr. Smith is here to answer questions about the notoriously destructive gypsy moth and its impact on our environment. Dr. Smith, why is the gypsy moth known as one of North America's most destructive pests?"

TS: "The gypsy moth is a very, very serious pest. It will affect everybody in the state if it becomes established. In the forestry area, it will be doing quite a bit of damage to our forests. For homeowners, it will be eating the leaves off of trees and just really affecting the homeowners' value of their property, the shade, the beauty of their property. It will be affecting people who want to walk in the woods, hunt in the woods. It will be affecting those who are concerned about the environment - because it will be having an impact on the environment and changing our environment in different ways. So everybody, every Californian, will be affected by this particular pest if it becomes established."

AW: "What do you feel the best management and treatment methods are for gypsy moth eradication?"

TS: "Gypsy moth eradication has been done with spot infestations all over the country for decades. And, as far as I can tell, the best form of eradication is the use of Bt, *Bacillus thuringiensis*. It's a naturally occurring bacteria. It is registered for use in organic farming and is used extensively in organic farming. It has no known human or other environmental side effects that can be of any problem and it does a very good job in eradicating small infestations, such as the one that we have here in California at the moment."

AW: "Where did the gypsy moth come from and how does it spread?"

TS: "The gypsy moth isn't native to North America so it doesn't have any of its natural parasites, predators, diseases that would keep it in check in Europe and Asia where it is native - and here it has spread through the Northeast and into the lake states where it has done a huge amount of

damage, killing millions of trees, particularly oaks and other broadleaf trees."

AW: "Now what danger does the gypsy moth pose to forestry?"

TS: "The gypsy moth is a defoliator - it eats leaves. So the damage that you see are trees that are lacking leaves. The leaves have either been chewed on, or are completely gone. As the caterpillars get larger, they will eat the entire leaves and strip a tree bare. For forestry, it is a leaf eater on the trees, particularly oaks – and I really fear for the oaks in California. It could move through the entire oak range and do a great deal of damage. Also, as the caterpillars mature and get larger, and if the population gets really large, the caterpillars will move over from the broadleaf trees and start attacking conifers. They'll feed on pines, they'll feed on firs and spruces – so it can do quite a bit of damage to the forests throughout California."

AW: "What about the impact to water quality?"

TS: "Basically the gypsy moth, as it's eating leaves and it's forming its droppings, they're falling down into the water and doing quite a bit of damage. They're actually increasing the organic load in the streams, which can then let algae go crazy in the streams. Also, as the gypsy moth feeds on the different oaks and willows and different riparian species that grow along the streams, there's not as much shade on those streams. That increases the water temperature. You increase the water temperature just a degree or two and you can have a profound impact on the salmon species in particular - and kill off the salmon species in that stream."

AW: "Does CAL FIRE support the California Department of Agriculture's eradication efforts?"

TS: "CAL FIRE is working with the Department of Food and Ag and their education outreach to the public. We've gone to public meetings. We're doing anything we can support. But at this point, we're really just supporting the Department of Food and Agriculture in California."

AW: "Thanks, Dr. Smith, for a very informative interview and thank you for tuning in to the CDFA Agricast. If you have a question or comment for us, please e-mail us at the officeofpublicaffairs@cdfa.ca.gov. That's officeofpublicaffairs@cdfa.ca.gov."